X-CRAFT ... in a class by itself

The Office of Naval Research is developing a high speed, experimental vessel called Littoral Surface Craft – Experimental, or "X-Craft." This high speed aluminum catamaran will test a variety of technologies that will allow the Navy to operate in littoral, or near-shore, waters. The X-Craft will be used to evaluate the hydrodynamic performance, structural behavior, mission flexibility, and propulsion system efficiency of high speed vessels. X-Craft will eventually be fitted with an advanced lifting body. The lifting body is a streamlined underwater appendage that will dampen low-speed ship motions, increasing the operational envelope for helicopter and small craft operations. Liquid polymers will be used on the surface of the lifting body to evaluate drag reduction.

Conceptual drawing of the X-Craft

Mission flexibility will be demonstrated through interchangeable "mission modules" (standard twenty foot containers) housed in the X-Craft's large Mission Bay. The Mission Bay will be capable of housing twelve containers, permitting the vessel to be quickly reconfigured to support a variety of potential missions, including battle force protection, mine counter-measures, anti-submarine warfare, amphibious assault support and humanitarian support. A multi-purpose Stern Ramp will allow X-Craft to launch and recover manned and unmanned surface and sub-surface vehicles up to the size of an 11 m Rigid-Hull Inflatable Boat (RHIB). From its flight deck, X-Craft will be able to operate with two MH-60S helicopters at a time.

After completion of the contract design, shipyard competition, and design review in March 2003, the keel for the 262 foot-long X-Craft was laid in June 2003. The 925 ton (light ship displacement) ship will be launched in the fall of 2004. After approximately two months of trials, the X-Craft will be delivered near the end of 2004. In 2006, the lifting body will be installed and tested. Following testing, the X-Craft may be upgraded with weapons and additional electronic equipment. Ultimately, the X-Craft may be commissioned as an operational Navy ship.

X-Craft Specifications

DIMENSIONS:
Length (overall): 262 ft (80 m)
Length (at waterline): 240 ft (73 m)
Beam: 72 ft (22 m)
Draft (max): 12 ft (3.6 m)
Light Ship Displacement: 925 tons

PERFORMANCE:
Max Speed: 50 knots
Max Speed (Sea State 4): 40 knots
Max Speed (Diesels only): 20+ knots
Range: 4000 nm @ 20+ knots

PROPULSION: Combined Diesel OR Gas Turbine (CODOG)
2 x GE LM2500 Gas Turbine Engines
2 x MTU 16V 595 TE 90 Propulsion Diesels
4 x Rolls-Royce 125SII Waterjets

X-Craft Prime Contractor: Titan Corporation
X-Craft Building Yard: Nichols Brothers

Lifting Body Prime Contractor: Pacific Marine
Naval Architect: Nigel Gee and Associates (BMT)